IN THE CLAIMS:

Claim 1 (Previously Presented) A biologically inactive metal interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate convex surfaces that are generally coaxially located with respect to said axis and which are cylindrical in shape along a substantial length of said device; said upper and lower surfaces having elongate side edges;

b) said body also having concave side surfaces along a substantial length thereof; said side surfaces extending between and near to respective side edges of said upper and lower surfaces; and

c) said device being formed of a metallic material which is biologically inactive.

Claim 2 (Cancelled)

Claim 3 (Previously Presented) The device according to Claim 1 wherein:

a) both of said side surfaces have the same shape.

Claim 4 (Cancelled)

Claim 5 (Original) The device according to Claim 1 wherein:

a) said upper and lower surfaces have a helically wound discontinuous thread located thereon.

Claim 6 (Original) The device according to Claim 1 wherein:

a) said thread extends from a rear to near a front of said device.

Claim 7 (Original) The device according to Claim 6 wherein:

a) said thread has a maximum and minimum diameter therealong and said minimum diameter approximately equals said maximum diameter in two forward turns of said thread so as to provide a generally smooth cylindrical surface for anterior bone support.

Claim 8 (Cancelled)

Claim 9 (Cancelled)

Claim 10 (Cancelled)

Claim 11 (Cancelled)

Claim 12 (Cancelled)

Claim 13 (Previously Presented) A biologically inactive metal interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate surfaces that are generally coaxially located with respect to said axis; said upper and lower surfaces having elongate side edges; said upper and lower surfaces each having a thread located thereon;

b) said thread has a generally uniform thread depth except near a front of said device whereat said thread depth is reduced;

c) said body also having concave side surfaces; said side surfaces extending between respective side edges of said upper and lower surfaces; and

d) said device being formed of a metallic material which is biologically inactive.

Claim 14 (Previously Presented) In a threaded interbody device for placement between a pair of adjacent vertebrae having an axis of rotation with upper and lower outer surfaces with threads thereon adapted to operably engage respective vertebrae and a pair of concave shaped side surfaces joining respective outer edges of said lower and upper surfaces; the improvement comprising wherein:

a) each of said upper and lower surfaces are sectors of a cylinder substantially along the entire length of said device and

have a convex circular cross-section in a plane perpendicular to said axis; and

b) said device is formed of a metallic material which is biologically inactive.

Claim 15 (Previously Presented) A biologically inactive non-metal interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate convex surfaces that are generally coaxially located with respect to said axis and which are cylindrical in shape along a substantial length of said device; said upper and lower surfaces having elongate side edges;

b) said body also having concave side surfaces along a substantial length thereof; said side surfaces extending between respective side edges of said upper and lower surfaces; and

c) said device is formed from a non-metallic material which is biologically inactive.

Claim 16 (Cancelled)

Claim 17 (Previously Presented) The device according to Claim 15 wherein:

a) both of said side surfaces are mirror images of each other

and extend along parallel to said axis.

Claim 18 (Cancelled)

Claim 19 (Original) The device according to Claim 15 wherein:

a) said upper and lower surfaces have a helically wound discontinuous thread located thereon.

Claim 20 (Original) The device according to Claim 15 wherein:

a) said thread extends from a rear to near a front of said device.

Claim 21 (Original) The device according to Claim 20 wherein:

a) said thread has a maximum and minimum diameter therealong and said minimum diameter approximately equals said maximum diameter in two forward turns of said thread so as to provide a generally smooth cylindrical surface for anterior bone support.

Claim 22 (Cancelled)

Claim 23 (Cancelled)

Claim 24 (Cancelled)

Claim 25 (Cancelled)

Claim 26 (Cancelled)

Claim 27 (Previously Presented) A biologically inactive non-metal interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate surfaces that are generally coaxially located with respect to said axis; said upper and lower surfaces having elongate side edges; said upper and lower surfaces each having a thread located thereon;

b) said thread has a generally uniform thread depth except near a front of said device whereat said thread depth is reduced;

c) said body also having concave side surfaces; said side surfaces extending between and near to respective side edges of said upper and lower surfaces; and

d) said device is formed of a non-metallic material which is biologically inactive.

Claim 28 (Previously Presented) In a threaded interbody device for placement between a pair of adjacent vertebrae having an axis of rotation with upper and lower outer surfaces with threads thereon adapted to operably engage respective vertebrae and a pair of concave shaped side surfaces joining respective outer

edges of said lower and upper surfaces; the improvement comprising wherein:

a) each of said upper and lower surfaces are sectors of a cylinder substantially along the entire length of said device and have a convex circular cross-section in a plane perpendicular to said axis; and

b) said device is formed of a non-metallic material which is biologically inactive.

Claim 29 (Previously Presented) A biologically active bone-based interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate convex surfaces that are generally coaxially located with respect to said axis and which are cylindrical in shape along a substantial length of said device; said upper and lower surfaces having elongate side edges;

b) said body also having arced side surfaces along a substantial length thereof; said side surfaces extending between and near to respective side edges of said upper and lower surfaces; and

c) said device being formed from a bone-based material which is biologically active.

Claim 30 (Cancelled)

Claim 31 (Cancelled)

Claim 32 (Cancelled)

Claim 33 (Original) The device according to Claim 29 wherein:

a) said upper and lower surfaces have a helically wound discontinuous thread located thereon.

Claim 34 (Original) The device according to Claim 29 wherein:

a) said thread extends from a rear to near a front of said device.

Claim 35 (Original) The device according to Claim 34 wherein:

a) said thread has a maximum and minimum diameter therealong and said minimum diameter approximately equals said maximum diameter in two forward turns of said thread so as to provide a generally smooth cylindrical surface for anterior bone support.

Claim 36 (Cancelled)

Claim 37 (Cancelled)

Claim 38 (Cancelled)

Claim 39 (Cancelled)

Claim 40 (Cancelled)

Claim 41 (Previously Presented) A biologically active bone-based interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate surfaces that are generally coaxially located with respect to said axis; said upper and lower surfaces having elongate side edges; said upper and lower surfaces each having a thread located thereon;

b) said thread has a generally uniform thread depth except near a front of said device whereat said thread depth is reduced;

c) said body also having concave side surfaces; said side surfaces extending between respective side edges of said upper and lower surfaces; and

d) said device is formed from a bone-based material which is biologically active.

Claim 42 (Previously Presented) In a threaded interbody device for placement between a pair of adjacent vertebrae having an axis of rotation with upper and lower outer surfaces with threads

thereon adapted to operably engage respective vertebrae and a pair of concave shaped side surfaces joining respective outer edges of said lower and upper surfaces; the improvement comprising wherein:

a) each of said upper and lower surfaces are sectors of a cylinder substantially along the entire length of said device and have a convex circular cross-section in a plane perpendicular to said axis; and

b) said device is formed form a bone-based material which is biologically active.

Claim 43 (Previously Presented) A biologically active non-bone based interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate convex surfaces that are generally coaxially located with respect to said axis and which are cylindrical in shape along a substantial length of said device; said upper and lower surfaces having elongate side edges;

b) said body also having concave side surfaces along a substantial length thereof; said side surfaces extending between and near to respective side edges of said upper and lower surfaces; and

c) said device being formed from a non-bone based

material which is biologically active.

Claim 44 (Cancelled)

Claim 45 (Cancelled)

Claim 46 (Cancelled)

Claim 47 (Original) The device according to Claim 43 wherein:
a) said upper and lower surfaces have a helically wound discontinuous thread located thereon.

Claim 48 (Original) The device according to Claim 43 wherein:
a) said thread extends from a rear to near a front of said device.

Claim 49 (Original) The device according to Claim 48 wherein:
a) said thread has a maximum and minimum diameter therealong and said minimum diameter approximately equals said maximum diameter in two forward turns of said thread so as to provide a generally smooth cylindrical surface for anterior bone support.

Claim 50 (Cancelled)

Claim 51 (Cancelled)

Claim 52 (Cancelled)

Claim 53 (Cancelled)

Claim 54 (Cancelled)

Claim 55 (Previously Presented) A biologically active non-bone based interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate surfaces that are generally coaxially located with respect to said axis; said upper and lower surfaces having elongate side edges; said upper and lower surfaces each having a thread located thereon;

b) said thread has a generally uniform thread depth except near a front of said device whereat said thread depth is reduced;

c) said body also having concave side surfaces; said side surfaces extending between respective side edges of said upper and lower surfaces; and

d) said device is formed from a non-bone based material which is biologically active.

Claim 56 (Previously Presented) In a threaded interbody device for placement between a pair of adjacent vertebrae having an axis of rotation with upper and lower outer surfaces with threads thereon adapted to operably engage respective vertebrae and a pair of concave shaped side surfaces joining respective outer edges of said lower and upper surfaces; the improvement comprising wherein:

a) each of said upper and lower surfaces are sectors of a cylinder substantially along the entire length of said device and have a convex circular cross-section in a plane perpendicular to said axis; and

b) said device is formed from a non-bone based material which is biologically active.

Claim 57 (Previously Presented) An interbody device for placement between a pair of adjacent vertebrae; said device comprising:

a) a body having an axis and upper and lower elongate convex surfaces that are generally coaxially located with respect to said axis and which are cylindrical in shape along a substantial length of said device; said upper and lower surfaces having elongate side edges;

b) said body also having concave side surfaces along a substantial length thereof; said side surfaces extending from near respective side edges of said upper and lower surfaces; and

c) said body extending between said concave side surfaces and between said convex surfaces substantially the entire length thereof.